(Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159_
Applicant	
Irvin et	al
Filing Date	Group
May 24 2001	1646

		U.S. PA	TENT DOCUMENT	rs		
Examiner's Initials	Document Number	Publication Date	Inventor	Class	Subclass	Filing Date If Appropriate
139	5,445,818	08-29-95	Hodges et al.			
1	5,468,484	11-21-95	Hodges et al.	-		
	5,494,672	02-27-96	Hodges et al.			
1/	5,612,036	03-18-97	Hodges et al.			

FOREIGN PATENT DOCUMENTS							
Examiner's	Examiner's Document Publication Translat				ation		
Initials	Number	Date	Country	Class	Subclass	Yes	No
92	WO 95/31480	11-23-95	PCT				
7	WO 97/12988	04-10-97	PCT				
	WO/ 98/52976	11-26-98	PCT				

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Irvin, R.T. (1993) "Attachment and Colonization of <i>Pseudomonas aeruginosa:</i> Role of the Surface Structures", pp 19-42, Plenum Press, New York.
	Pier, G.B., (1985) "Pulmonary Disease Associated with <i>Pseudomonas aeruginosa</i> in Cystic Fibrosis: Current Status of the Host-Bacterium Interaction", J. <i>Infect. Dis.</i> 151:575-580.
	Rivera, M., et al. (1982) "Pseudomonas aeruginosa Mucoid Strain", Am. Rev. Respir. Dis. 126:833-836.
	Todd, T.R.J., et al. (1989) "Augmented Bacterial Adherence to Tracheal Epithelial Cells Is Associated with Gram-Negative Pneumonia in an Intensive Care Unit Population", Am. Rev. Respir. Dis. 140:1585-1589.
	Irvin, R.T., et al. (1989) "Characterization of the Pseudomonas aeruginosa Pilus Adhesin: Confirmation that the Pilin Structural Protein Subunit Contains a Human Epithelial Cell-Binding Domain", Infect. Immun. 57:3720-3726.
	Lee, K.K., et al. (1989) "Mapping the surface regions of Pseudomonas aeruginosa PAK pilin: the importance of the C-terminal region for adherence to human buccal epithelial cells," Mol. Microbial. 3:1493-1499.

\*Examiner: Initial of citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date Considered:

Examiner:

(Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159
Applicant	
Irvin et	al
Filing Date	Group
3424 2001	1 1040

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
ne l	Doig, P., et al. (1987) "Characterization of the Binding of Pseudomonas aeruginosa Alginate to Human Epithelial Cells," Infect. Immun. 55:1517-1522.				
	Irvin, R.T., et al. (1990) "Usefulness of Equilibrium Parameters of Adhesion in Predicting the Outcome of Competition for Bacterial Receptor Sites on Respiratory Epithelial Cells by Pseudomonas aeruginosa Strains of Heterologous Pilus Type", Microb. Ecol. Health Dis. 3:39-47.				
	Bradley, D.E. (1972) "A study of pili on Pseudomonas aeruginosa", Genet. Res. 19:39-51.				
	Folkhard, W.F., et al. (1981) "Structure of Polar Pili from Pseudomonas aeruginosa Strains K and O", J. Mol. Biol. 149:79-93.				
	Paranchych, W., et al. (1986) "Fimbriae (Pili): Molecular Basis of Pseudomonas Aeruginosa Adherence", Clin Invest Med 9:113-118.				
	Paranchych, W., et al. (1990) "Expression, processing, and assembly of Pseudomonas aeruginosa N-methylphenylalanine pilin", in <u>Pseudomonas:</u> Biotransformations, Pathogenesis and Evolving Biotechnology, (Sliver, S., et al., eds.), pp 343-351, American Society for Microbiology, Washington, D.C.				
	Pasloske, B. L., et al. (1988) "Two Unusual Pilin Sequences from Different Isolates of Pseudomonas aeruginosa", J. Bacteriol. 170:3738-3741.				
	Yu, L., et al. (1994) "Adherence of Pseudomonas aeruginosa and Candida albicans to Glycosphingolipid (Asialo-GM <sub>1</sub> ) Receptors Is Achieved by a Conserved Receptor-Binding Domain Present on Their Adhesins", Infect. Immun. 62:5213-9.				
	Sheth, H.B., et al. (1994) "The pili of Pseudomonas aeruginosa strains PAK and PAO bind specifically to the carbohydrate sequence βGaINAc(1-4)βGal found in glycosphingolipids asialo-GM <sub>1</sub> and asialo-GM <sub>2</sub> ", Mol. Microbiol. 11:715-23.				
	Doig, P., et al. (1990) "Inhibition of Pilus-Mediated Adhesion of Pseudomonas aeruginosa to Human Buccal Epithelial Cells by Monoclonal Antibodies Directed against Pili", Infect. Immun. 58:124-130.				

	- O Massal		1. 01	1. 11
Examiner:	1/7/1/30	Date Considered:	1)61	U)
*Examiner:	Initial if citation considered, whether or not	t citation is in conformance	e with N	MPEP Section

(Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159
Applicant	
Irvin et	al
Filing Date	Group
May 24 2001	1645

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	Lee, K.K., et al. (1989) "Immunological Studies of the Disulfide Bridge Region of Pseudomonas aeruginosa PAK and PAO Pilins, Using Anti-PAK Pilus and Antipeptide Antibodies", Infect. Immun. 57:520-526.			
	Sheth, H.B., et al. (1995) "Development of an anti-adhesive vaccine for Pseudomonas aeruginosa targeting the C-terminal region of the pilin structural protein", Biomed. Pept. Proteins and Nucleic Acids 1:141-148.			
	Spangenberg, C., et al. (1995) "Comparison of type IV-pilin genes of Pseudomononas aeruginosa of various habitats has uncovered a novel unusual sequence", FEMS Microbiol Lett 125:(2-3):265-273.			
	Koga, T., et al. (1993) "Genetic and functional characterization of the gene cluster specifying expression of <i>Pseudomonas aeruginosa</i> pili", Infect <i>Immunol</i> 61(4):1371-1377.			
	Sastry, P.A., et al. (1985) "Comparative studies of the amino acid and nucleotide sequences of pilin derived from Pseudomonas aeruginosa PAK and PAO", J. Bacteriol. 164(2):571-577.			
	Johnson, K., et al. (1986) "Nucleotide sequence and transcriptional initiation site of two Pseudomonas aeruginosa pilin genes", J. Biol Chem. 261(33):15703-15708.			
	Castric, P.A., et al. (1989) "Cloning and sequencing of the Pseudomonas aeruginosa 1244 pilin structural gene", Mol Gen Genet 216(1):75-80.			
	Strom, M.S., et al. (1986) "Cloning and expression of the pilin gene of Pseudomonas aeruginosa PAK in Escherichia coli", J. Bacteriol. 165(2):367-372.			
	Yi, T.M., et al. (1993) "Protein secondary structure prediction using nearest-neighbor methods", J Mol Biol. 232(4):1117-1129.			
	Viswanadhan, V.N., et al. (1991) "New joint prediction algorithm (Q7-JASEP) improves the prediction of protein secondary structure", Biochemistry 30(46):11164-11172.			
	King, R.D., et al. (1990) "Machine learning approach for the prediction of protein secondary structure", J Mol Biol 216(2):441-457.			

	$\bigcirc$	MAIN			11/1	U
Examiner:	)			Date Considered:	140	) (
*Examiner:	Initial	if citation considered	whether or not	citation is in conformar	nce with	MPEP Section 609:

#### INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)

PTO Form 1449

	Atty Docket No.	Application No.
	113190-064	09/865,159
	Applicant	
	Irvin et a	1.
Filing Date		Group
	May 24 2001	1645

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
nilitais	Biou V., et al. (1988) "Secondary structure prediction: combination of three different methods", Protein Eng 2(3):185-191.
	Corrigan, A.J. (1982) "A BASIC microcomputer program for plotting the secondary structure of proteins", Comput Programs Biomed. 15(3):163-168.
	Tripet, B.L., et al. (1996) "Engineering a de novo-designed coiled-coil heterodimerization domain for the rapid detection, purification and characterization of recombinantly expressed peptides and proteins", Protein Eng 9:1029-1042.
	Chao, H., et al. (1998) "Use of a heterodimeric coiled-soil system for biosensor application and affinity purification", J. Chrom A. 715:307-329.
	Zhou N.E., et al. (1993) "A single-stranded amphipathic α-helix in aqueous solution: design, structural characterization, and its application for determining α-helical propensities of amino acids", Biochemistry 32:6190-6197.
	Gunasekaran, K., et al. (1998) "Stereochemical Punctuation Marks in Protein Structures: Glycine and Proline Containing Helix Stop Signals", J Mol Biol 6:917-932.
	Paranchych, W., et al. (1988) "The physiology and biochemistry of pili", Advan Microbiol Phys 29:53-114.
	Paranchych, W., et al. (1979) "Biochemical studies on pili isolated from Pseudonomas aeruginosa strain PAO", Can J. Microbiol 25:1175-1181.
	Pasloske B.L., et al. (1988) "The expression of mutant pilins in Pseudomonas aeruginosa: fifth position glutamate affects pilin methylation", Mol Microbiol 2:489-495.
	Pasloske, B.L., et al. (1985) "Cloning and sequencing of the Pseudomonas aeruginosa PAK pilin gene", FEBS Lets 183:408-412.

	$\bigcap$	M	LAT	1		1 (-2	1
Examiner:		<u> </u>		Date Conside	ered:	21100	$\Lambda$
*Examiner: Initial in Draw line through communication to app	itation	if not in	ered, whether of conformance a	or not citation is in and not considered.	conformanc Include co	e with MPER	Section 609; orm with next

(Use several sheets if necessary)

PTO Form 1449

Atty Docket No. 113190-064	Application No. 09/865,159
Applicant Irvin et	al.
Filing Date	Group
May 24, 2001	1645

		U.S. PA	TENT DOCUMENT	rs		
Examiner's Initials	Document Number	Publication Date	Inventor	Class	Subclass	Filing Date If Appropriate
1201	5,445,818	08-29-95	Hodges et al.			
1	5,468,484	11-21-95	Hodges et al.			
	5,494,672	02-27-96	Hodges et al.	-		
1/	5,612,036	03-18-97	Hodges et al.			٦

Examiner's	Document	Publication	PATENT DOCUME			Trans	lation
Initials	Number	Date	Country	Class	Subclass	Yes	No
94	WO 95/31480	11-23-95	PCT				
8	WO 97/12988	04-10 <b>-</b> 97	PCT				
	WO/ 98/52976	11-26-98	PCT				

Examiner's	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
Initials	
0	Irvin, R.T. (1993) "Attachment and Colonization of <i>Pseudomonas aeruginosa</i> : Role of the Surface Structures", pp 19-42, Plenum Press, New York.
	Pier, G.B., (1985) "Pulmonary Disease Associated with Pseudomonas aeruginosa in Cystic Fibrosis: Current Status of the Host-Bacterium Interaction", J. Infect. Dis. 151:575-580.
	Rivera, M., et al. (1982) "Pseudomonas aeruginosa Mucoid Strain", Am. Rev. Respir. Dis. 126:833-836.
	Todd, T.R.J., et al. (1989) "Augmented Bacterial Adherence to Tracheal Epithelial Cells Is Associated with Gram-Negative Pneumonia in an Intensive Care Unit Population", Am. Rev. Respir. Dis. 140:1585-1589.
	Irvin, R.T., et al. (1989) "Characterization of the Pseudomonas aeruginosa Pilus Adhesin: Confirmation that the Pilin Structural Protein Subunit Contains a Human Epithelial Cell-Binding Domain", Infect. Immun. 57:3720-3726.
	Lee, K.K., et al. (1989) "Mapping the surface regions of <i>Pseudomonas aeruginosa</i> PAK pilin: the importance of the C-terminal region for adherence to human buccal epithelial cells," Mol. <i>Microbial</i> . 3:1493-1499.

Examiner: Date Considered: 22604

<sup>\*</sup>Examiner: Initial of citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

# INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159
Applicant	
Irvin et	al
Filing Date	Group
May 24 2001	1645

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
<i>P</i>	Doig, P., et al. (1987) "Characterization of the Binding of Pseudomonas aeruginosa Alginate to Human Epithelial Cells," Infect. Immun. 55:1517-1522.
	Irvin, R.T., et al. (1990) "Usefulness of Equilibrium Parameters of Adhesion in Predicting the Outcome of Competition for Bacterial Receptor Sites on Respiratory Epithelial Cells by Pseudomonas aeruginosa Strains of Heterologous Pilus Type", Microb. Ecol. Health Dis. 3:39-47.
	Bradley, D.E. (1972) "A study of pili on Pseudomonas aeruginosa", Genet. Res. 19:39-51.
	Folkhard, W.F., et al. (1981) "Structure of Polar Pili from Pseudomonas aeruginosa Strains K and O", J. Mol. Biol. 149:79-93.
	Paranchych, W., et al. (1986) "Fimbriae (Pili): Molecular Basis of Pseudomonas Aeruginosa Adherence", Clin Invest Med 9:113-118.
	Paranchych, W., et al. (1990) "Expression, processing, and assembly of Pseudomonas aeruginosa N-methylphenylalanine pilin", in <u>Pseudomonas:</u> Biotransformations, Pathogenesis and Evolving Biotechnology, (Sliver, S., et al., eds.), pp 343-351, American Society for Microbiology, Washington, D.C.
	Pasloske, B. L., et al. (1988) "Two Unusual Pilin Sequences from Different Isolates of Pseudomonas aeruginosa", J. Bacteriol. 170:3738-3741.
	Yu, L., et al. (1994) "Adherence of Pseudomonas aeruginosa and Candida albicans to Glycosphingolipid (Asialo-GM <sub>1</sub> ) Receptors Is Achieved by a Conserved Receptor-Binding Domain Present on Their Adhesins", Infect. Immun. 62:5213-9.
	Sheth, H.B., et al. (1994) "The pili of Pseudomonas aeruginosa strains PAK and PAO bind specifically to the carbohydrate sequence βGaINAc(1-4)βGal found in glycosphingolipids asialo-GM <sub>1</sub> and asialo-GM <sub>2</sub> ", Mol. Microbiol. 11:715-23.
	Doig, P., et al. (1990) "Inhibition of Pilus-Mediated Adhesion of Pseudomonas aeruginosa to Human Buccal Epithelial Cells by Monoclonal Antibodies Directed against Pili", Infect. Immun. 58:124-130.

Examiner: Date Considered: Date Considered:	Mass	
Company with MDED Section 60	Examiner:	Date Considered:
Draw line through criation if not in conformance and not considered. Include copy of this form with necessary to applicant	Draw line through citation if not in conf	whether or not citation is in conformance with MPEP Section 609; formance and not considered. Include copy of this form with next

(Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159
Applicant	
Irvin e	t al.
Filing Date	Group
May 24 2001	1645

Examiner's	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
Initials	Lee, K.K., et al. (1989) "Immunological Studies of the Disulfide Bridge Region of Pseudomonas aeruginosa PAK and PAO Pilins, Using Anti-PAK Pilus and Antipeptide Antibodies", Infect. Immun. 57:520-526.
	Sheth, H.B., et al. (1995) "Development of an anti-adhesive vaccine for Pseudomonas aeruginosa targeting the C-terminal region of the pilin structural protein", Biomed. Pept. Proteins and Nucleic Acids 1:141-148.
	Spangenberg, C., et al. (1995) "Comparison of type IV-pilin genes of Pseudomononas aeruginosa of various habitats has uncovered a novel unusual sequence", FEMS Microbiol Lett 125:(2-3):265-273.
	Koga, T., et al. (1993) "Genetic and functional characterization of the gene cluster specifying expression of <i>Pseudomonas aeruginosa</i> pili", Infect <i>Immunol</i> 61(4):1371-1377.
	Sastry, P.A., et al. (1985) "Comparative studies of the amino acid and nucleotide sequences of pilin derived from Pseudomonas aeruginosa PAK and PAO", J. Bacteriol. 164(2):571-577.
	Johnson, K., et al. (1986) "Nucleotide sequence and transcriptional initiation site of two Pseudomonas aeruginosa pilin genes", J. Biol Chem. 261(33):15703-15708.
	Castric, P.A., et al. (1989) "Cloning and sequencing of the Pseudomonas aeruginosa 1244 pilin structural gene", Mol Gen Genet 216(1):75-80.
	Strom, M.S., et al. (1986) "Cloning and expression of the pilin gene of Pseudomonas aeruginosa PAK in Escherichia coli", J. Bacteriol. 165(2):367-372.
	Yi, T.M., et al. (1993) "Protein secondary structure prediction using nearest-neighbor methods", J Mol Biol. 232(4):1117-1129.
	Viswanadhan, V.N., et al. (1991) "New joint prediction algorithm (Q7-JASEP) improves the prediction of protein secondary structure", Biochemistry 30(46):11164-11172.
	King, R.D., et al. (1990) "Machine learning approach for the prediction of protein secondary structure", J Mol Biol 216(2):441-457.

(		1	1001	5 12/14M	
Examiner:			,0	Date Considered: JUIO	
	//			 	•

(Use several sheets if necessary)

PTO Form 1449

Atty Docket No.	Application No.
113190-064	09/865,159
Applicant	
Irvin et	al.
Filing Date	Group
May 24 2001	1645

Examiner's Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Biou V., et al. (1988) "Secondary structure prediction: combination of three different methods", Protein Eng 2(3):185-191.
	Corrigan, A.J. (1982) "A BASIC microcomputer program for plotting the secondary structure of proteins", Comput Programs Biomed. 15(3):163-168.
	Tripet, B.L., et al. (1996) "Engineering a de novo-designed coiled-coil heterodimerization domain for the rapid detection, purification and characterization of recombinantly expressed peptides and proteins", Protein Eng 9:1029-1042.
	Chao, H., et al. (1998) "Use of a heterodimeric coiled-soil system for biosensor application and affinity purification", J. Chrom A. 715:307-329.
	Zhou N.E., et al. (1993) "A single-stranded amphipathic α-helix in aqueous solution: design, structural characterization, and its application for determining α-helical propensities of amino acids", Biochemistry 32:6190-6197.
	Gunasekaran, K., et al. (1998) "Stereochemical Punctuation Marks in Protein Structures: Glycine and Proline Containing Helix Stop Signals", J Mol Biol 6:917-932.
	Paranchych, W., et al. (1988) "The physiology and biochemistry of pili", Advan Microbiol Phys 29:53-114.
	Paranchych, W., et al. (1979) "Biochemical studies on pili isolated from Pseudonomas aeruginosa strain PAO", Can J. Microbiol 25:1175-1181.
	Pasloske B.L., et al. (1988) "The expression of mutant pilins in Pseudomonas aeruginosa: fifth position glutamate affects pilin methylation", Mol Microbiol 2:489-495.
	Pasloske, B.L., et al. (1985) "Cloning and sequencing of the Pseudomonas aeruginosa PAK pilin gene", FEBS Lets 183:408-412.

Examiner: Date Considered:

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Irvin et al. Appl. No.: 09/865,159

Conf. No.: 3428

Filed: May 24, 2001

Title: PSEUDOMONAS TREATMENT COMPOSITION AND METHOD

Art Unit: 1645 Examiner: J. Graser Docket No.: 113190-64

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

#### SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 37 C.F.R. 1.97, and 37 C.F.R. 1.98, Applicants request that a citation and examination of the references cited below, and on the attached PTO-1449 form, copies of which are enclosed, be made during the course of examination of the above-identified application for United States patent.

#### **U.S. PATENT DOCUMENTS**

Document No.	<u>Date</u>	<u>Inventor</u>
5,445,818	August 29, 1995	Hodges et al.
5,468,484	November 21, 1995	Hodges et al.
5,494,672	February 27, 1996	Hodges et al.
5,612,036	March 18, 1997	Hodges et al.

#### **FOREIGN PATENT DOCUMENTS**

Document No.	<u>Date</u>	Country
WO 95/31480	November 23, 1995	PCT
WO 97/12988	April 10, 1997	PCT
WO/ 98/52976	November 26, 1998	PCT

#### **OTHER DOCUMENTS**

Irvin, R.T. (1993) "Attachment and Colonization of *Pseudomonas aeruginosa*: Role of the Surface Structures", pp 19-42, Plenum Press, New York.

12/24/2003 EFLORES 00000077 09865159

01 FC:1806

180.00 DP

- Pier, G.B., (1985) "Pulmonary Disease Associated with *Pseudomonas aeruginosa* in Cystic Fibrosis: Current Status of the Host-Bacterium Interaction", J. *Infect. Dis.* 151:575-580.
- Rivera, M., et al. (1982) "Pseudomonas aeruginosa Mucoid Strain", Am. Rev. Respir. Dis. 126:833-836.
- Todd, T.R.J., et al. (1989) "Augmented Bacterial Adherence to Tracheal Epithelial Cells Is Associated with Gram-Negative Pneumonia in an Intensive Care Unit Population", Am. Rev. Respir. Dis. 140:1585-1589.
- Irvin, R.T., et al. (1989) "Characterization of the Pseudomonas aeruginosa Pilus Adhesin: Confirmation that the Pilin Structural Protein Subunit Contains a Human Epithelial Cell-Binding Domain", Infect. Immun. 57:3720-3726.
- Lee, K.K., et al. (1989) "Mapping the surface regions of *Pseudomonas aeruginosa* PAK pilin: the importance of the C-terminal region for adherence to human buccal epithelial cells," Mol. *Microbial*. 3:1493-1499.
- Doig, P., et al. (1987) "Characterization of the Binding of Pseudomonas aeruginosa Alginate to Human Epithelial Cells," Infect. Immun. 55:1517-1522.
- McEachran, D., et al. (1985) "Adhesion of *Pseudomonas aeruginosa* to human buccal epithelial cells: evidence for two classes of receptors", *Can. J. Microbial.* 31:563-569.
- Irvin, R.T., et al. (1990) "Usefulness of Equilibrium Parameters of Adhesion in Predicting the Outcome of Competition for Bacterial Receptor Sites on Respiratory Epithelial Cells by Pseudomonas aeruginosa Strains of Heterologous Pilus Type", Microb. Ecol. Health Dis. 3:39-47.
- Bradley, D.E. (1972) "A study of pili on Pseudomonas aeruginosa", Genet. Res. 19:39-51.
- Folkhard, W.F., et al. (1981) "Structure of Polar Pili from Pseudomonas aeruginosa Strains K and O", J. Mol. Biol. 149:79-93.
- Paranchych, W., et al. (1986) "Fimbriae (Pili): Molecular Basis of Pseudomonas Aeruginosa Adherence", Clin Invest Med 9:113-118.
- Paranchych, W., et al. (1990) "Expression, processing, and assembly of Pseudomonas aeruginosa N-methylphenylalanine pilin", in <u>Pseudomonas: Biotransformations</u>, <u>Pathogenesis and Evolving Biotechnology</u>, (Sliver, S., et al., eds.), pp 343-351, American Society for Microbiology, Washington, D.C.
- Pasloske, B. L., et al. (1988) "Two Unusual Pilin Sequences from Different Isolates of Pseudomonas aeruginosa", J. Bacteriol. 170:3738-3741.
- Yu, L., et al. (1994) "Adherence of Pseudomonas aeruginosa and Candida albicans to Glycosphingolipid (Asialo-GM<sub>1</sub>) Receptors Is Achieved by a Conserved Receptor-Binding Domain Present on Their Adhesins", Infect. Immun. 62:5213-9.

- Sheth, H.B., et al. (1994) "The pili of Pseudomonas aeruginosa strains PAK and PAO bind specifically to the carbohydrate sequence  $\beta$ GaINAc(1-4) $\beta$ Gal found in glycosphingolipids asialo-GM<sub>1</sub> and asialo-GM<sub>2</sub>", Mol. Microbiol. 11:715-23.
- Doig, P., et al. (1990) "Inhibition of Pilus-Mediated Adhesion of Pseudomonas aeruginosa to Human Buccal Epithelial Cells by Monoclonal Antibodies Directed against Pili", Infect. Immun. 58:124-130.
- Lee, K.K., et al. (1989) "Immunological Studies of the Disulfide Bridge Region of Pseudomonas aeruginosa PAK and PAO Pilins, Using Anti-PAK Pilus and Antipeptide Antibodies", Infect. Immun. 57:520-526.
- Sheth, H.B., et al. (1995) "Development of an anti-adhesive vaccine for Pseudomonas aeruginosa targeting the C-terminal region of the pilin structural protein", Biomed. Pept. Proteins and Nucleic Acids 1:141-148.
- Spangenberg, C., et al. (1995) "Comparison of type IV-pilin genes of *Pseudomononas* aeruginosa of various habitats has uncovered a novel unusual sequence", *FEMS* Microbiol Lett 125:(2-3):265-273.
- Koga, T., et al. (1993) "Genetic and functional characterization of the gene cluster specifying expression of *Pseudomonas aeruginosa* pili", Infect *Immunol* 61(4):1371-1377.
- Sastry, P.A., et al. (1985) "Comparative studies of the amino acid and nucleotide sequences of pilin derived from *Pseudomonas aeruginosa* PAK and PAO", *J. Bacteriol.* 164(2):571-577.
- Johnson, K., et al. (1986) "Nucleotide sequence and transcriptional initiation site of two Pseudomonas aeruginosa pilin genes", J. Biol Chem. 261(33):15703-15708.
- Castric, P.A., et al. (1989) "Cloning and sequencing of the Pseudomonas aeruginosa 1244 pilin structural gene", Mol Gen Genet 216(1):75-80.
- Strom, M.S., et al. (1986) "Cloning and expression of the pilin gene of *Pseudomonas aeruginosa* PAK in *Escherichia coli*", J. *Bacteriol*. 165(2):367-372.
- Yi, T.M., et al. (1993) "Protein secondary structure prediction using nearest-neighbor methods", J Mol Biol. 232(4):1117-1129.
- Viswanadhan, V.N., et al. (1991) "New joint prediction algorithm (Q<sub>7</sub>-JASEP) improves the prediction of protein secondary structure", Biochemistry 30(46):11164-11172.
- King, R.D., et al. (1990) "Machine learning approach for the prediction of protein secondary structure", J Mol Biol 216(2):441-457.
- Biou V., et al. (1988) "Secondary structure prediction: combination of three different methods", Protein Eng 2(3):185-191.

- Corrigan, A.J. (1982) "A BASIC microcomputer program for plotting the secondary structure of proteins", *Comput Programs Biomed.* 15(3):163-168.
- Tripet, B.L., et al. (1996) "Engineering a de novo-designed coiled-coil heterodimerization domain for the rapid detection, purification and characterization of recombinantly expressed peptides and proteins", Protein Eng 9:1029-1042.
- Chao, H., et al. (1998) "Use of a heterodimeric coiled-soil system for biosensor application and affinity purification", J. Chrom A. 715:307-329.
- Zhou N.E., et al. (1993) "A single-stranded amphipathic  $\alpha$ -helix in aqueous solution: design, structural characterization, and its application for determining  $\alpha$ -helical propensities of amino acids", Biochemistry 32:6190-6197.
- Gunasekaran, K., et al. (1998) "Stereochemical Punctuation Marks in Protein Structures: Glycine and Proline Containing Helix Stop Signals", J Mol Biol 6:917-932.
- Paranchych, W., et al. (1988) "The physiology and biochemistry of pili", Advan Microbiol Phys 29:53-114.
- Paranchych, W., et al. (1979) "Biochemical studies on pili isolated from Pseudonomas aeruginosa strain PAO", Can J. Microbiol 25:1175-1181.
- Pasloske B.L., et al. (1988) "The expression of mutant pilins in *Pseudomonas aeruginosa*: fifth position glutamate affects pilin methylation", *Mol Microbiol* 2:489-495.
- Pasloske, B.L., et al. (1985) "Cloning and sequencing of the Pseudomonas aeruginosa PAK pilin gene", FEBS Lets 183:408-412.

Applicants look forward to early and favorable consideration of this matter.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY

Thomas C. Basso Reg. No.46,541 P.O. Box 1135

Chicago, Illinois 60690-1135

Phone: (312) 807-4310

Dated: December 17, 2003